EXPERIMENTAL CELL RESEARCH

EXECUTIVE EDITORS
T. CASPERSSON · T. GUSTAFSON · D. MAZIA · N. R. RINGERTZ

ASSISTANT EDITOR
BARBARA CANNON

ADMINISTRATIVE EDITOR
VERA RUNNSTRÖM-REIO

EDITORIAL OFFICE
KAROLINSKA INSTITUTET, S-104 01 STOCKHOLM 60, SWEDEN

EDITORS
D. BOOTSMA · O. I. EPIFANOVA · W. W. FRANKE · P. R. HARRISON
K. E. HELLSTRÖM · R. LEVI-MONTALCINI · G. L. NICOLSON · I. PASTAN · PER A. PETERSON
D. M. PRESCOTT · F. H. RUDDLE · PER SEGLEN · K. WEBER · F. WILT

VOLUME 129 · 1980

ACADEMIC PRESS, New York and London
A Subsidiary of Harcourt Brace Jovanovich, Publishers

COPYRIGHT, © 1980, BY ACADEMIC PRESS, INC.

All Rights Reserved

No part of this publication may be reproduced or transmitted in any form, or by any means, electronic and mechanical, including photocopy, recording, or any information storage and retrieval system, without permission in writing from the copyright owner

Printed in Sweden by

Almqvist & Wiksell, Uppsala 1980

TABLE OF CONTENTS

NUMBER 1, SEPTEMBER 1980

Akasaka, K, Amemiya, S & Terayama, H, Scanning electron microscopical study on the inside of sea urchin embryos (*Pseudocentrotus depressus*). Effect of aryl β-xyloside, tunicamycin and deprivation of sulfate ions 1

Walker, W S & Gandour, D M, Detection and functional assessment of complement receptors on two murine macrophage-like cell lines 15

Friedkin, M, Legg, A & Rozengurt, E, Enhancement of DNA synthesis by colchicine in 3T3 mouse fibroblasts stimulated with growth factors 23

Bloom, G S & Lockwood, A H, Redistribution of myosin during morphological reversion of Chinese hamster ovary cells induced by db-cAMP 31

Wiley, L M, Early mouse embryonic cell surface antigens that are detectable by antisera to human chorionic gonadotropin (hCG) 47

Webster, R O, Zanolari, B & Henson, P M, Neutrophil chemotaxis in response to surface-bound C5a 55

Miller, D R, Hamby, K M, Allison, D P, Fischer, S M & Slaga, T J, The maintenance of a differentiated state in cultured mouse epidermal cells 63

Ledbetter, M L & Lubin, M, Interference of ouabain in cell-to-cell coupling 73

Krüger, P G, Lagunoff, D & Wan, H, Isolation of rat mast cell granules with intact membranes 83

Birek, C, Brunette, D M, Heersche, J N M, Wang, H-M & Johnston, M G, A reverse hemolytic plaque assay for the detection of prostaglandin production by individual cells in vitro 95

Osborn, M & Weber, K, Dimethylsulfoxide and the ionophore A23187 affect the arrangement of actin and induce nuclear actin papacrystals in PtK2 cells 103

Scheer, U, Sommerville, J & Müller, U, DNA is assembled into globular supranucleosomal chromatin structures by nuclear contents of amphibian oocytes 115

Suárez, H G, Persuy, M A, Westerveld, A, Ermonval, M, Kay, A & Cassingena, R, Linkage relationship between TK and SV40 T-antigen genes in the SV40-transformed $WI_{98}VaD$ human cell line 127

Godeau, F, Boquet, P, Schorderet-Slatkine, S, Schorderet, M & Baulieu, E-E, Studies of microbial toxins in *Xenopus laevis* oocytes 133

Hubbell, H R, Lau, Y-F, Brown, R L & Hsu, T C, Cell cycle analysis and drug inhibition studies of silver staining in synchronous HeLa cells 139

Aubin, J E, Osborn, M, Franke, W W & Weber, K, Intermediate filaments of the vimentin-type and the cytokeratin-type are distributed differently during mitosis 149

Krohne, G & Franke, W W, A major soluble acidic protein located in nuclei of diverse vertebrate species 167

Merrill, G F, Witter, E B & Hauschka, S D, Differentiation of thymidine kinase deficient mouse myoblasts in the presence of 5′-bromodeoxyuridine 191

Vermeer, B J, Havekes, L, Wijsman, M C & Emeis, J J, Immunoelectronmicroscopical investigations on the adsorptive endocytosis of low density lipoproteins by human fibroblasts 201

Beach, D, Piper, M & Shall, S, Isolation of newly-initiated DNA from the early S phase of the synchronous eukaryote, *Physarum polycephalum* 211

Numata, O, Yasuda, T, Hirabayashi, T & Watanabe, Y, A new fiber-forming protein from *Tetrahymena pyriformis* 223

Van't Hof, J, Pea (*Pisum sativum*) cells arrested in G2 have nascent DNA with breaks between replicons and replication clusters 231

Gjessing, R & Seglen, P O, Adsorption, simple binding and complex binding of rat hepatocytes to various in vitro substrata 239

NUMBER 2, OCTOBER 1980

Bradley, W E C, Conditional instability of induced variants of CHO. Transient sensitivity to contact with wild-type cells 251

Meek, R L, Rebeiro, T & Daniel, C W, Patterns of unscheduled DNA synthesis in mouse embryo cells associated with in vitro aging and with spontaneous transformation to a continous cell line 265

Aubery, M, Guillouzo, A, Bernard, B & Font, J, Changes in *Ricinus communis* lectin binding to the cell surface of human liver cells in culture. The relationship between in vitro cellular aging and the age of the donor 273

Zuckerman, S H, Olson, J M & Douglas, S D, Adenosine deaminase activity during in vitro culture of human peripheral blood monocytes and pulmonary alveolar macrophages 281

Loor, F & Ångman, L, Capping revisited. III. Differential inhibitory characteristics of the various cytochalasins 289

Rener, J & Nardone, R M, Nucleolar RNA synthesis in heterokaryons derived from senescent and pre-senescent human fibroblasts 297

White, A & Ayad, S R, Changes in cAMP and fibronectin concentrations in adherent and suspension forms of a hybrid cell line 303

Yen, S-H, Liem, R K H, Jenq, L-T & Shelanski, M L, Rapid purification of intact tonofilaments from newborn rats. Comparison with glial filaments and neurofilaments 313

Lustig, S, Fishman, P, Djaldetti, M & Pluznik, D H, Topographic changes of membrane receptors for wheat germ agglutinin during the cell cycle and their relation to cytolysis 321
Davies, P F & Ross, R, Growth-mediated, density-dependent inhibition of endocytosis in cultured arterial smooth muscle cells 329
Paetau, M, Mellström, K, Westermark, B, Dahl, D, Haltia, M & Vaheri, A, Mutually exclusive expression of fibronectin and glial fibrillary acidic protein in cultured brain cells 337
Vracko, R & McFarland, B, H, Lifespans of diabetic and non-diabetic fibroblasts in vitro. Results of replicate determinations 345
Li, I-C, Blake, D A, Goldstein, I J & Chu, E H Y, Modification of cell membrane in variants of Chinese hamster cells resistant to abrin 351
Bottenstein, J E & Sato, G H, Fibronectin and polylysine requirement for proliferation of neuroblastoma cells in defined medium 361
Pontén, J & Stolt, L, Proliferation control in cloned normal and malignant human cells 367
Nichols, K M & Rikmenspoel, R, Flagellar waveform reversal in *Euglena* 377
Halley, D J J, Sacchi, N, d'Azzo, A, Reuser, A J J & Galjaard, H, Intercellular exchange of lysosomal hydrolases between mutant human fibroblasts and other cell types 383
Poste, G, Lyon, N C, Macander, P, Porter, C W, Reeve, P & Bachmeyer, H, Liposome-mediated transfer of integral membrane glycoproteins into the plasma membrane of cultured cells 393
Lymberopoulos, G & Hawthorne, J N, Inhibition by myo-inositol of the anti-mitotic effect of colchicine on rat fibroblasts and rat intestinal mucosa 409
Kleiman, L, Peters, S, Woodward-Jack, J & Myers, J, Alterations in the metabolism of transfer RNA during erythroid differentiation of the Friend erythroleukemia cell 415
Hart, C A, Wharton, W & Goz, B, Parathyroid hormone inhibition of induction of alkaline phosphatase activity in HeLa cells by 5-iodo-2′-deoxyuridine without increased adenylate cyclase activity or cellular cAMP concentration 425
Maul, G G, Determination of newly synthesized and phosphorylated nuclear proteins in mass-isolated germinal vesicle of *Spisula solidissima* 431
Henderson, D & Weber, K, Immunoelectron microscopic studies of intermediate filaments in cultured cells 441

PRELIMINARY NOTES

Bacou, F & Fouguès, J, Alterations of enzymatic activities during red and white muscle differentiation in vitro 455
Marzella, L, Ahlberg, J & Glaumann, H, In vitro uptake of particles by lysosomes 460
Binet, E, Evain, D & Anderson, W B, Calcitonin-responsive adenylate cyclase in cultured F9 embryonal carcinoma cells 466
Pacifici, M, Cossu, G, Molinaro, M & Tato, F, Vitamin A inhibits condrogenesis but not myogenesis 469
Boynton, A L & Whitfield, J F, Possible involvements of arachidonic acid in the initiation of DNA synthesis by rat liver cells 474
Seljelid, R, Bäckström, G & Lindahl, U, Proteinase activity in macrophage cultures. Effects of heparin and antithrombin 478
von Kalm, L & Smyth, D R, Silver staining test of nucleolar suppression in the *Lilium* hybrid "Black Beauty" 481
Ortner, M J, The oxidation of endogenous ascorbic acid during histamine secretion by rat peritoneal mast cells 485